



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,168	07/17/2000	Reinhold Nutz JR.	Serie 5379	7634
7590	11/05/2004		EXAMINER	
Jeffrey L Wendt Air Liquide 2700 Post Oak Blvd Suite 1800 Houston, TX 77056			LEUNG, JENNIFER A	
			ART UNIT	PAPER NUMBER
			1764	
DATE MAILED: 11/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/617,168	NUTZ ET AL. 
	Examiner	Art Unit
	Jennifer A. Leung	1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 Feb 2004, 10 June 2004, 19 July 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15, 17-30 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) 31 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-15, 17-30 and 32-34 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-15 and 17-34 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and subsequent corrections submitted February 2, 2004, June 10, 2004 and July 19, 2004 have been received and carefully considered. Claim 31 is withdrawn from further consideration. Claim 16 is cancelled. Claims 32-34 are newly added. Claims 1-15, 17-30 and 32-34 remain active.

Response to Arguments

2. Applicant's arguments with respect to the rejections of claims 1-15, 17-30 and 32-34 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15, 17-30 and 32-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear as to the structural limitation applicant is attempting to recite by, "one or more deflector jets installed at points substantially *between first and second injectors*," (lines 8-9), and where it is disclosed in the specification and drawings. According to FIG. 5 and page 11, line 23, to page 12, line 19, (and specifically, page 12, lines 3-4), Applicants describe, "... one or more deflector jets **36**, ... are installed at strategic points *between burner nozzles [10]*," and not between first injectors **38** and second injectors **40** (FIG. 3) as instantly

recited in the claim. In this case, the “at least one nozzle” recited in line 1 must also be amended to recite at least *two* nozzles, or a *plurality* of nozzles, for proper antecedent basis, since at least two nozzles must be present for the deflector jet to be located *between* nozzles. Please also note subsequent references to a single nozzle in the dependent claims to correct for antecedent basis.

Regarding claim 34, it is unclear as to the structural limitation applicant is attempting to recite by, “one or more deflector jets installed at points substantially *between first and second injectors*,” (lines 13-14), and where it is disclosed in the specification and drawings. According to FIG. 5 and page 11, line 23, to page 12, line 19, (and specifically, page 12, lines 3-4), Applicants describe, “... one or more deflector jets **36**, ... are installed at strategic points *between burner nozzles [10]*,” and not between first injectors **38** and second injectors **40** (see FIG. 3) as instantly recited in the claim. In this case, the “at least one nozzle” recited in line 2 must also be amended to recite at least *two* nozzles, or a *plurality* of nozzles, for proper antecedent basis, since at least two nozzles must be present for the deflector jet to be located *between* nozzles. Please also note subsequent references to a single nozzle in the dependent claims to correct for antecedent basis.

Allowable Subject Matter

4. Claims 1-15, 17-30 and 32-34 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

5. **THIS ACTION IS MADE FINAL.** As set forth in 37 CFR 1.136(a), a shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

Art Unit: 1764

of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

* * *

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Calderola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer A. Leung

October 29, 2004

JK

Hien Tran

HIEN TRAN
PRIMARY EXAMINER